Low Vision Resource Packet

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MISERICORDIA
Health Centre
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Introduction

This resource packet provides helpful resources and tips for people with all types of vision ability: from very minor vision loss to almost completely blind.

This is intended for both people who are experiencing low vision, as well as friends and family members looking for ways to help.

TIP to magnify: An easy way to enlarge the font on the computer is to hold down the control key and use the scroll on the mouse to adjust size.

You can CLICK or TAP on underlined words, or buttons to jump quickly to that section.

Underlined Words

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Tips: Living With Low Vision

When living with low vision, it is helpful to change your surroundings or the way you do your usual activities to manage daily life more easily and safely. Below are several helpful tips, however, follow-up with a low vision professional is highly recommended.

1. Change the surroundings

Changes to surroundings can assist with vision loss. Using Velcro, tape, magnifiers and more, we can make our surroundings easier to see and use by creating contrast, using lighting and magnification, as well as organizing important areas. Click below to find out more.

- Contrast (p. 7)
- Lighting (p. 13)
- Magnification (p. 21)
- Organization (p. 29)

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2. Use helpful actions and techniques

If you have low vision, there are certain techniques that will help keep you safer.

- **Trailing (p. 35)**
- **Protective techniques (p. 36)**
- **Use other senses (p. 37)**
- **Eccentric Viewing (p. 39)**

3. Marking Appliances

Use bright sticker bumps and Velcro to mark appliances to stay independent in your home. Marking Appliances (p. 40)

4. Writing Legibly

Use techniques and tools to help your writing.

Writing Legibly (p. 43)

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5. Advanced Tips

This is a big list of even more advanced tips and techniques for improving quality of life with low vision. **Advanced Tips (p. 45)**

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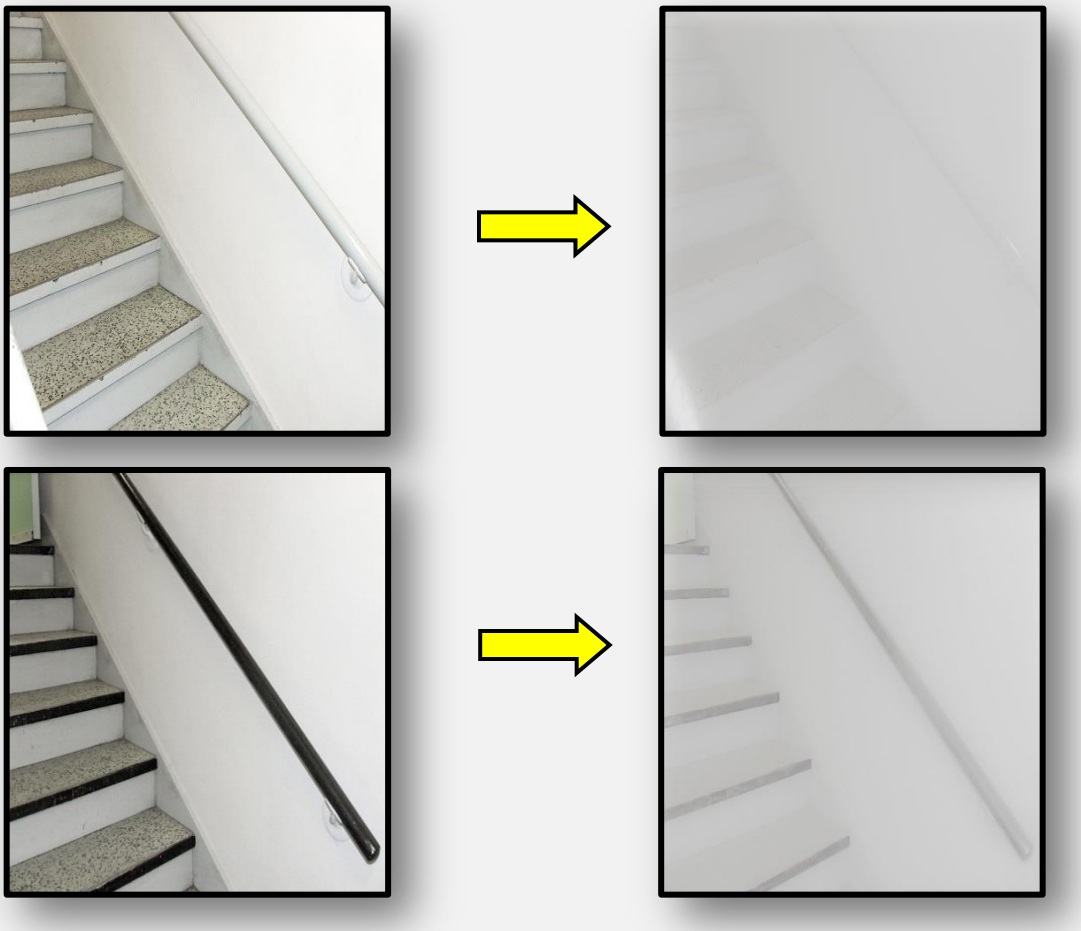
Contrast

With low vision, one may have problems seeing areas that are alike in colour. Increasing contrast around your home can help you use your vision for everyday tasks.

Below is a simulation of how increasing the contrast of both stairs and handrail may help a person with contrast difficulties.

This section describes the use of contrast in your kitchen, bathroom, inside, and outside of the house.



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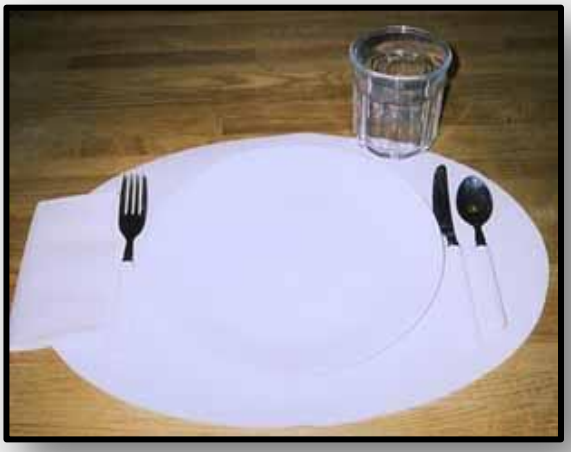
Kitchen

For meals, use a dark placemat or tablecloth for light coloured plates.

Use light coloured dots or stickers to mark dark dials on ovens or microwave and dark dots on light dials.

When measuring items like sugar use dark measuring cups/spoons Use white cups/spoons for measuring coffee.



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Avoid clear drinking glasses for liquids. Use dark glasses for light coloured liquids like milk. Use light or white glass for dark liquids such as coffee.

This is an example of a reversible black and white cutting board.

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Bathroom

If your bathroom is white lay a coloured towel over the edge of your tub.

Use a dark coloured soap dish, toothbrush and cup on a light coloured counter or use white soap dish, toothbrush and cup on a dark counter.

Use a dark coloured toilet seat to add contrast to a toilet or add coloured tape to outline the seat.

Use a light coloured bottle for shampoo and a dark coloured bottle for conditioner.

Use coloured wash cloths or towels if your bathroom is light coloured.

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AT HOME (INSIDE)

Use contrast tape to mark the edge of stairs.

In a room that has dark furniture and dark floors, use light coloured pillows or throw blankets.

Use dark tape to mark the outlines of outlets, light switches and thermostat controls on light coloured walls.

For light coloured carpet in the bedroom use a dark bedspread.

Use telephones with lighted buttons or mark the #5 with a dot to help with dialing.

Use dot marking for TV remote controls.

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AT HOME (OUTSIDE)

Use dark tape or paint to mark thresholds and the edge of outdoor steps

Use light landscape stones or fencing to outline between lawn and landscape beds

Use lighted garage door controls

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Lighting

With low vision, one will need brighter lighting, however, it is also important to avoid shining direct light into the eye, which may cause uncomfortable glare.

This section describes:

1. **Room Lighting - this lights up the whole room**
2. **Task Lighting - this is used for an activity such as reading, writing, or cooking**
3. **Additional house lighting**
4. **Avoiding glare**

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Room Lighting:

Try to keep all rooms evenly lit. It may be difficult for your eyes to adjust from bright light to low light. Dimmer switches may be helpful to adjust light. Use window shades and sheers to control amount of sunlight coming in.

Types of lighting: There are different types of light. It is worth trying different types to find which works best for you.

1. **Incandescent - This is a common bulb type for many types of fixtures. These light bulbs may cause glare and create shadows.**
2. **Fluorescent – This type of light creates an even light. It may cause less glare than incandescent bulbs. Some find this light to cause a strobe effect that is not good for them. This light is useful for overhead and task lighting. It may be attached under cupboards.**
3. **Full Spectrum – This type of bulb is closest to sunlight. It has a pure white light. These bulbs may cost more and be hard to find in stores. They often work well for those with low vision. You may want to talk to your Eye Doctor about wearing "blue blockers" for sunlight and full spectrum lighting. Some eye diseases can be affected by the blue rays of light that come from these sources.**

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4. **<u>Halogen</u> – This light offers a bright even white light for task and room lighting. Some torchiere lamps have halogen light. Halogen light is very hot; use with caution. Do not put close to skin or anything that may burn.**

5. **<u>LED (Light emitting diode)</u> – These can be used for room and task lighting with advantages over incandescent including longer lifespan and lower energy consumption.**

(More below re: lighting)

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Task Lighting

Uses task lights for specific activities. Move the task light closer to the surface or activity. For reading, place the light behind you over your shoulder or near the reading material. For writing, place the light opposite your writing hand. This will reduce shadows.

- **Task lighting is placed behind and above person if possible.**
- **Eliminate shadows and shiny reflections on surfaces.**
- **Place as close to task as person can tolerate.**
- **Avoid facing a window.**

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Examples of lights used for task lighting:

1. **Halogen lamp**
2. **Gooseneck lamp**
3. **Big eye lamp magnifier**
4. **F**

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Additional Lighting

Add more lighting in the home:

- **overhead lighting**
- **torchiere floor lamps**
- **task lamps**
- **under-cupboard lights**
- **stick-on lights for closets or pantries**
- **motion sensor or timer controlled yard lights**
- **night lights**

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Glare

Glare is a common problem. It is often painful for persons with vision loss.

<u>To reduce glare</u>:

1. **Use shades on lamps.**

2. **Soften bright light from windows with blinds or sheer curtains.**

3. **Arrange the chair and table so you don't have to look at the light coming from the window.**

4. **Shiny paper may create glare. Use low gloss or matte paper for reading and writing.**

5. **Counter or table surfaces may be shiny. They can be covered with a non-shiny material to reduce glare.**

6. **Filters (like sunglasses) can help reduce glare. They can be very helpful for some people. Lightly tinted filters can be used indoors. Darker tinted filters can be used outdoors.**

7. **Filters can be bought from stores where eyeglasses, sunglasses or low vision equipment are sold.**

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8. **When outdoors, wear a hat with a brim.**

9. **TV Screens and computer monitors should be positioned at a right angle to windows. If they are behind the monitor, curtains or shades will help control the incoming light.**

10. **When reading, it is okay to move your reading light further away or wear sunglasses indoors.**

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Magnification

Magnification is useful for detailed work like reading or sewing. This section describes magnifiers and how to use them, as well as using larger print, and writing materials.

Magnifiers

There are many more magnifiers out there than a typical magnifying glass! It is important to determine the most appropriate magnification for your needs. A low vision assessment at CNIB or elsewhere is helpful to determine the correct strength and type of magnification needed for a person. Also, training on how to use magnifiers correctly is important.

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Basic Steps for Magnifier Use

Stand Magnifier Technique:

1. **Wear your reading glasses if you normally wear them.**

2. **Lay magnifier on the reading material.**

3. **Pull the magnifier across the line of print from left to right**

4. **Then move to the next line of print return to the left side over the print just read.**

5. **Move the magnifier down to the next line and move to the right**

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Hand held magnifier technique:

1. **Be sure you are wearing your reading glasses if you normally wear them**
2. **Begin by laying down the magnifier on the page you are going to read.**
3. **Next, pull away the magnifier until the print comes into focus.**
4. **The distance between the magnifier to the printed page must be kept constant.**
5. **Then simply follow the steps for reading using either hold the text steady or hold the magnifier steady techniques.**

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Two techniques are used for magnifier use:

Method A: Holding Text Steady

1. **Hold the reading material steady.**
2. **Move the magnifier across the page from left to right.**
3. **Return back to the left side of the page.**
4. **Then move the magnifier over the line just read.**
5. **Finally, move the magnifier down to the next line and continue to read.**

Method B: Holding the Magnifier

1. **Hold the magnifier steady.**
2. **Move the reading material under the magnifier.**
3. **Read the line, return to the beginning of the line.**
4. **Move the reading material back under the magnifier- over the line of print just read.**
5. **Finally, move the reading material to the next line of print.**

Lens Care Tips

- **Clean the lenses of low vision aids with a soft cloth or lens cleaning solution and water.**
- **Store lens in their cases or wrapped in a soft cloth.**

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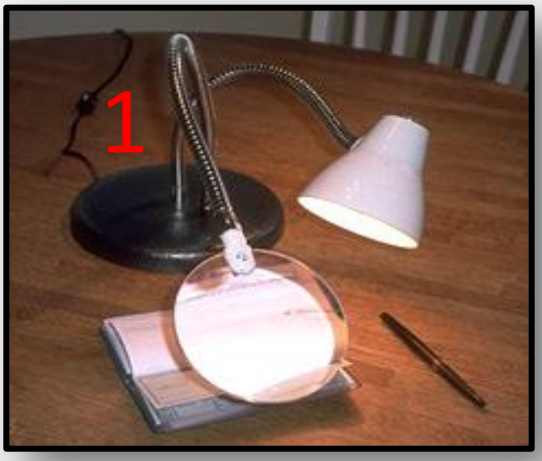

Here are some examples of magnifying tools:

1. A Big Eye" combination lamp/magnifier.
2. A magnifying mirror
3. A chest magnifier.

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Large Print Items

Use larger print as another means of magnification. Here are examples of a phone, spice labels, address book, and playing cards.

Large print books are readily available in a variety of formats, magazines, etc.

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Keyboards with easy to read keys are available. Stickers are available and can be applied to letters on the computer keyboard.

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Writing Tools

To make writing easier, improve visibility by maximizing contrast, lighting, and size of print.

Useful items include: Bold line paper, black markers instead of

pens or pencils, adapted cheques, and magnifiers.

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Organization

Simple and regular patterns with objects neatly spaced, are more easily seen and identified. Avoid visual clutter. Organizing drawers and cupboards simplifies the search process for people with low vision. This section describes some ways to reduce clutter.

Eliminate clutter and store items only 1-2 rows deep and unstacked.

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Hangers: On the left is a cluttered junk drawer. On the right, utensils are organized and hanging on a grid.

When you can't eliminate pattern, increase contrast of key objects. Contrasting tape marks handle of knife in drawer on the right.

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In this refrigerator, items are grouped by type on separate shelves; handles marked with contrasting tape.

Avoid visual clutter using simple, solid, contrasting backgrounds. Avoid backgrounds with patterns.

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Tips for Organizing Clothes

This handout will describe ways to organize a wardrobe and identify clothing for people who have difficulty identifying colours and patterns.

Organization

Organizing closets and drawers will make it easier to locate items. Here are some organization tips:

- **Place a matching outfit together on the same hanger.**
- **Group similar clothing together (all pants in one part of the closet, shirts in another part).**
- **Use sock tuckers to keep your socks matched during laundering, or buy all socks in one colour.**
- **Explore custom shelving and closet organizers to figure out a storage space that works for you.**
- **Small boxes are useful to keep items separated. Everything from socks to jewellery to cassette tapes may be stored this way.**

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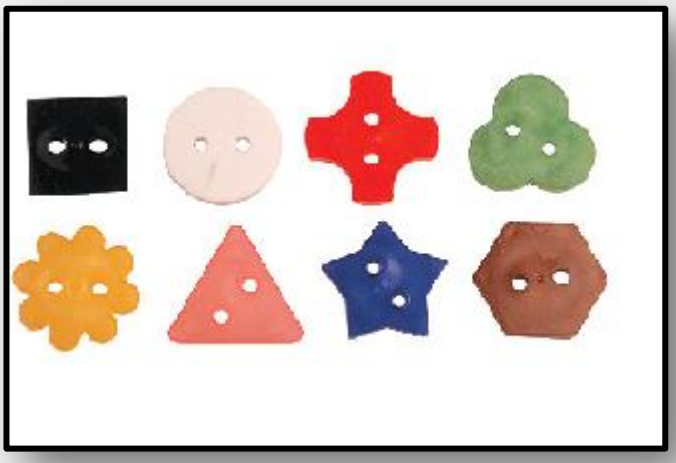
Labeling and identification

Using tactual cues, such as the texture, length of sleeves, and button design can help you identify many clothing items. Here are some suggestions that help to identify the color or pattern:

- **Make large print labels using unlined index cards and a black wide-tip marker. Punch a hole in the card and attach it to the hanger with a rubber band.**

- **Small safety pins placed in specific places can identify clothing. For example, one pin on the tag means the item is blue, two pins means it is red.**

- **Button markers are different shaped buttons that can be sewn on the label of clothing. Each shape represents a different color (see picture). Always create a master list of your coding system in large print or audio.**



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- **You can use a talking color identifier, which can identify many different shades and colors (see picture). There are cell phone apps which can do the same thing using your phone's camera lens.**

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Trailing

What it is:

Use your sense of touch to help when walking into a room. This allows you to keep your head up and scan for hazards or changes, rather than just looking at your feet.

How to do it:

With your arm in front, lightly touch the wall with your pinkie. Slightly bend your fingers to prevent jamming them if you bump into something. Keep constant touch on the wall or table when walking in the room.

(Described in *Occupational Therapy Interventions for Adults With Low* Vision Edited by Mary Warren, MS, OTR/L, SCLV, FAOTA, and Elizabeth A. Barstow, MS, OTR/L, SCLV)

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Protective Techniques

With low vision, injuries can happen if you are unaware of an object that is in the way as you walk or bend forward. This can happen when sitting, picking up something from the floor, approaching a table, or if a kitchen cabinet is left open.

How to use protective techniques:

Hold one arm at your forehead with your palm out, and the other at your waist, palm down. Do this when bending over, approaching cupboards, or approaching something that is waist high, like a table.

Sitting:

When sitting in a chair, use your top hand to hold onto the chair back. Use your lower hand to make sure the seat of the chair is clear of any objects.

(Described in *Occupational Therapy Interventions for Adults With Low* Vision Edited by Mary Warren, MS, OTR/L, SCLV, FAOTA, and Elizabeth A. Barstow, MS, OTR/L, SCLV)

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Use Other Senses

This section describes how to use other senses like touch or hearing to add to sight. Figure out what works best for you.

VISUAL AND TOUCH

This microwave has a contrasting black Velcro dot to mark the door opener. The key pad has additional, brightly coloured, raised adhesive dots to mark important buttons.

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AUDIO

This liquid level indicator chimes when liquid reaches device.

TOUCH

This needle threader can be used without vision.

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Eccentric Viewing

What it is:

Eccentric viewing is an alternative viewing technique that may be learned for tasks like reading or looking at objects and faces. This allows the use of peripheral vision when the obscured central vision does not work as well (such as with macular degeneration).

How it works:

The person learns to look past the object (or word when reading) slightly to the left, right, above or below. This technique requires training especially for reading and may also require use of a magnifier and extra lighting. It does not work for everyone, and reading will be slower.

To find out if this may work for you, contact a low vision rehabilitation professional. A good place to start is CNIB.

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Marking Appliances

Marking Appliance Dials

Marking your appliance dials with a tactile marker or a high contrast mark will make it easier to locate the temperatures or settings you commonly use.

To do this, you will need a marking device. Locator dots, Bump dots, Velcro and Hi Marks tactile pens and even nail polish are some options. It will also be helpful to have someone assist with marking the appliance.

Identify the commonly used settings on the appliance and place a mark on the dial and on the setting(s) more commonly used. Avoid placing too many marks as this will make the system less helpful. Bump dots and locator dots can be placed like stickers onto a clean appliance surface. Hi Marks or other tactile marking pens require placing a drop on the area and allowing it to dry.

When setting the appliance, align the dial with the desired setting, using the tactual marking or the high contrast as a guide. Below are examples of some appliances marked using this technique.

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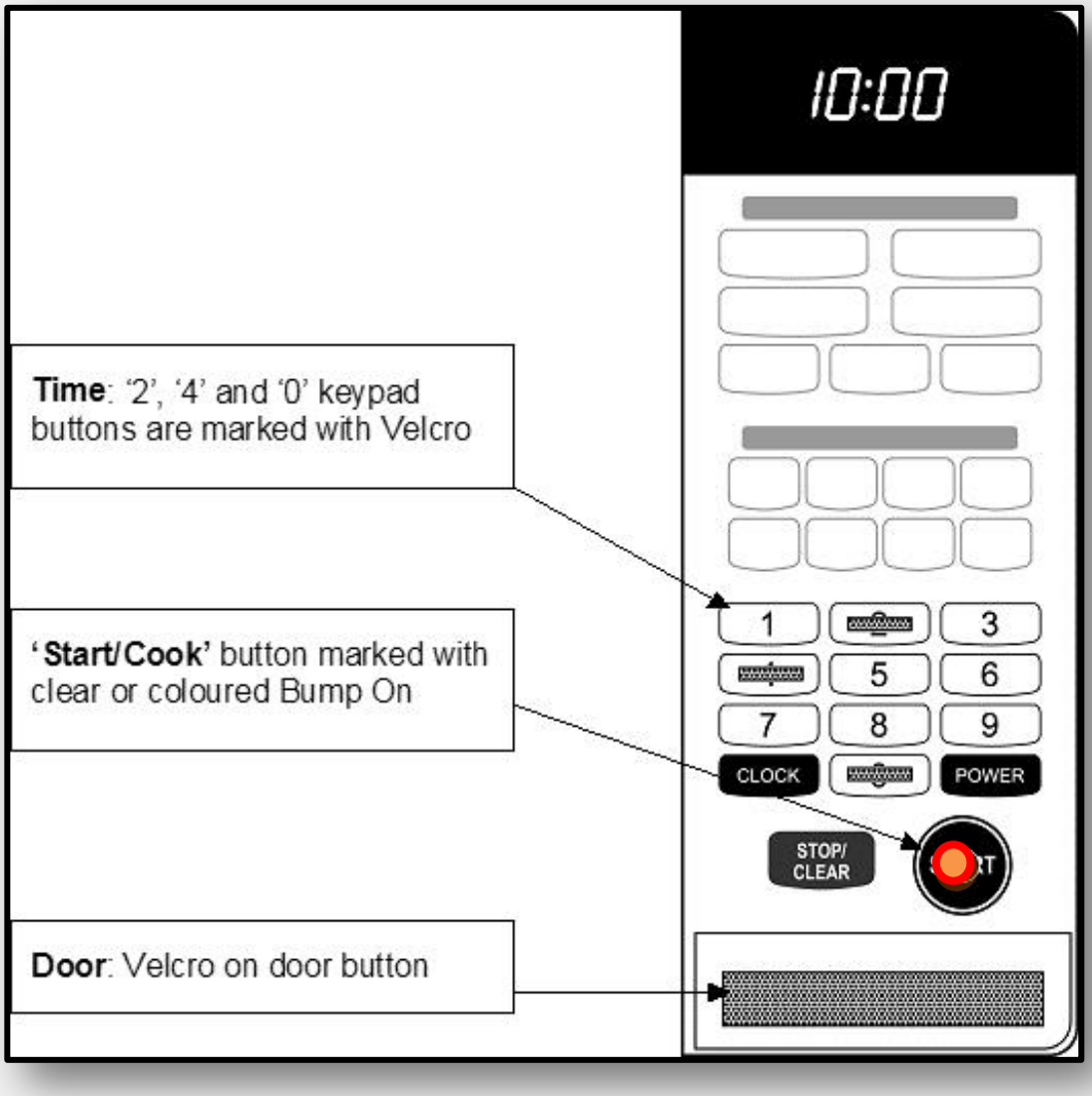
Images obtained from visionaustralia.org (modifications have been made)

Microwave Oven:



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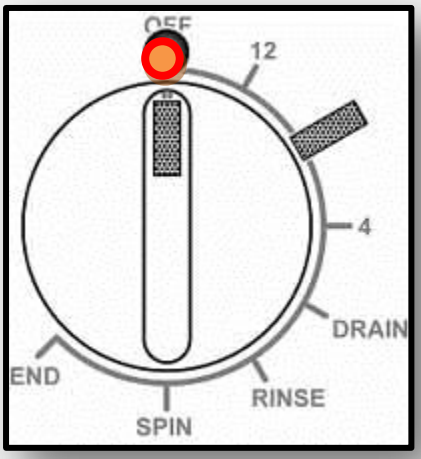
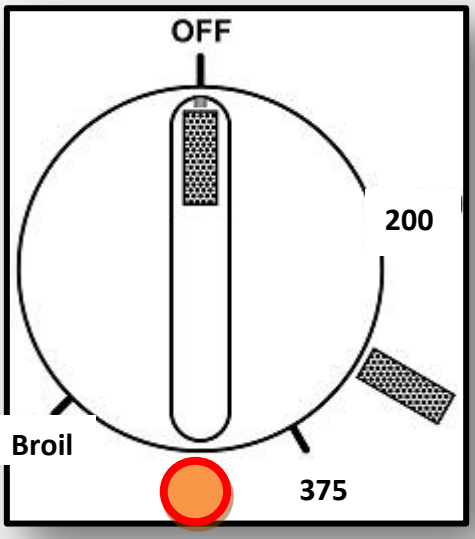
Washing Machine Dial:



“OFF” setting marked with contrast dot
8 minute mark and dial marked with velcro



Oven Dial: Dial and 350 degree mark have Velcro and 400 degree mark has contrasting dot

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Writing Legibly

- **Reading back what you have written will be easier if you use the PBS method, print block letters (capital) with good spacing.**

- **Use bold lined paper, cheques and cheque registers.**

- **If you prefer, templates are available for writing letters, addressing envelopes, writing cheques and signing your name.**

- **Many banks also have large print checks. Check with your bank to see what is available.**

- **Large print materials, such as crossword puzzles, calendars and address books will increase visibility and allow more room for writing.**

- **Set up one area for writing with all writing materials organized and visible.**

- **The writing surface should be smooth. Use a comfortable chair with good support.**

- **Good lighting is important. Place the light source close to the paper and opposite of the writing hand to eliminate shadows. Direct light away from eyes to reduce or eliminate glare.**

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- **Position the paper so the lines or template can be clearly seen.**
- **Slow down and pay attention.**
- **Use a bold point felt tip pen, or Sharpie marker.**
- **Look at the tip of pen where it touches the paper.**
- **Keep the tip of the pen in your sight you move it from left to right across the paper**
- **Print large block letters.**
- **Space out the letters.**

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Advanced Tips

Here are some more in depth tips that may be helpful for living with low vision.

Identifying Money (p. 46)

Telephone Techniques (p.48)

Personal Items (p. 50)

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Preparing Meals (p. 58)

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Leisure Time (p. 66)

Important Odds & Ends (p. 68)

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Identifying Money

There are many different ways to identify bills and it really doesn't matter how you do it as long as your method works for you. Some individuals prefer to separate their bills by denomination, then place the bills in different sections of their purse or wallet. Many people prefer a special billfold which has different sections for different bills. (These are available from CNIB.) If you've decided to identify your bills by folding, try this method:

- **Fold the Five Dollar Bills in half lengthwise.**
- **Fold the Ten Dollar Bills in half, end to end.**
- **Fold the Twenty Dollar Bills end to end, then lengthwise.**
- **Fold the Fifty Dollar Bills in half and in half again.**

When you receive money from others, ask what each bill is and fold it right away or put it in a special section of your wallet so you will be able to recognize it later. Take your time, don't be hurried.

Coins can be identified by touch. A special purse or coin organizer with separate slots for pennies, nickels, dimes, and quarters may also be a useful item. To identify coins by touch, select one coin at a time and use a fingernail or fingertips to feel the different sizes and edges of each coin:

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- **A penny is larger than a dime. Many pennies in circulation have a round smooth edge. Others have a multi-sided smooth edge.**
- **A nickel has a smooth edge and is larger and thicker than a penny.**
- **A dime has a rough grooved edge and is smaller than a penny.**
- **A quarter has a rough grooved edge and is larger and thicker than a nickel.**
- **A dollar coin (loonie) has an eleven sided smooth edge and is larger and thicker than a quarter.**
- **Practice identifying the coins by touch. Have a friend pass you different coins to identify or put a pile of coins on a table and sort out by yourself.**

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Telephone Techniques

Touch Tone Telephones: All push button telephones are identical in the display of the numbered buttons, making it easy to memorize the location of each number. The buttons may be lightly skimmed with the fingertip when dialing. Numbers on touch tone telephones are arranged in this way: top row from left to right 1, 2, 3; second row from left to right 4, 5, 6; third row from left to right 7,8,9. Zero is in the centre of the fourth row. Use your index finger to skim the buttons and locate the desired numbers. Or try the three finger method in which the second row of buttons (4, 5, and 6) are referred to as the home row: Put your index finger on 4, your middle finger on 5 and your ring finger on 6. With your index finger on the 4, you can easily reach up to I or down to 7. Likewise with your middle finger on 5 it can reach up to 2, down to 8 and 0, and with your ring finger on 6 you can move it up to 3 and down to 9. (For faster location of the home row put a locator dot, a piece of tape or other marking on the 5 button). With practice, it won't be long before you will be able to dial as fast as someone looking at the numbers. ("Lefties" will have to reverse this process.)

Large Print Number Templates are available, for both dial and push button telephones, from MTS or CNIB. Contact MTS to find out about special equipment, that will make telephoning easier, and discounts which you may receive on certain equipment and services.

Telephone numbers can be written in Braille, recorded with a cell phone or other device, or written in large print. It is a good idea to keep telephone numbers together, whether in a writing pad, notebook, recipe card box or on cassette. Whichever

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method you use, be sure to keep your numbers in a handy place near the telephone. If you are able to read large print, use a wide tipped black marker on white paper. Depending on your vision, you may choose to write one number on each page or several numbers on a page.

Telephones equipped with a memory system, enabling a person to dial a number by pressing only one button, may be useful.

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Personal Items

To identify keys, put a piece of brightly colored tape, which can be easily seen or felt, around the key. Similarly, put a Locator Dot (available from CNIB) on the key or a colored plastic hood (available from hardware and department stores, and CNIB) over the key top. Most places which copy keys have them available in a wide variety of colors.

When signing your name, place a signature guide over the line requiring your signature. (A variety of signature guides is available from CNIB.) Another way to locate the proper place to sign is to ask someone to make a fold, which you can feel, along the line requiring your signature. (Make sure the ridge of the fold is upward.) Or have someone place your index finger at the beginning of the signature line and sign your name to the right of your finger. People with low vision may find lines are easier to locate if traced with a dark pen or marker. Continue to sign your name. It is your personal mark of independence.

Searching by touch through an entire closet for a certain item becomes very tedious. If you organize items, you can eliminate endless searching. For example, garments may be separated by color, or casual clothes may be placed at one end of your closet and formal clothing placed at the opposite end.

Clothing in a closet is also easier to find when it is organized into matching outfits; for example, a suit jacket, shirt, tie, and slacks, all hung on one hanger or several hangers tied together. A label in large print or braille, or a geometric shape cut from cardboard or plastic (i.e. ice cream container top) may be placed over the hanger to identify clothing color.

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Use dividers in your cupboards and drawers. Drawers can be divided into as many sections as you find necessary to keep articles in their proper place. A variety of plastic trays and adjustable drawer dividers is available in hardware or department stores, or can be custom made.

If you have a white or light colored bathtub, buy dark colored contrasting soaps. They will be easier to locate than white soap, especially if they float.

Use soap on a rope or liquid soap dispensers. They are easy to locate and you avoid the slippery soap problem.

A shower caddy (available in department stores) is useful to hang over your shower head and hold personal care items such as shampoo and soap.

Use your index finger to guide a small amount of toothpaste onto your toothbrush. If you have your own personal tube of toothpaste, squeeze a small amount directly into your mouth. It's much easier and less messy.

If you are taking medication, you may wish to take advantage of the many pill organizers available at drug stores. Some organizers have one section for each day; other organizers are larger and have two or more sections for each day. These are especially useful for people who take several kinds of pills in the morning, at lunch, at dinner, and at bedtime.

If you keep your medications in a bottle yet have trouble remembering if you've taken the required daily amount, put the same number of elastic bands as number of pills you must take that day around the bottle. Remove an elastic band after taking each pill or dose.

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Organize medication in different ways on the shelf: according to frequency of use, in alphabetical order, or in categories used.

Large print or braille labels may be placed on medicine bottles to easily identify them. Any personal marking (for example, a piece of tape) will do the trick as long as it is understandable by you. When refilling, simply transfer the new medicine to the old bottle or ask your pharmacist to use the same container. If your label will fit on the lid of the bottle, you only need to interchange lids.

To easily identify baggage when travelling, place several large strips of contrasting colored tape on your suitcase.

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At The Table

To locate items at your place setting, start at the edge of the table and with your fingers curled and arms flexed move gently toward the centre of the table until you find your plate. With fingers low to the table, extend arms and fingers gradually to the right and left to find silverware, teacup, glass, salad bowl, bread and butter plate, etc. Accidents can happen easily, so remember to keep your hands on the surface of the table and move slowly. If you cannot find the item you need, ask for it to be passed to you.

To determine contents of the plate, use the tip of your knife or fork to gently probe the food on the plate. As you move around the plate, note the difference in textures, shapes, and smells, and remember the location of these foods on the plate. Note also whether or not the food is solid, such as mashed potatoes or steak, or loose, such as french fries or peas. Try to determine any special characteristics. Are there paper containers of relish? Is the baked potato cut down the middle? Does it contain any sour cream or is a separate container provided? Is there finger picking food on the plate? Does the meat have a "cooking directions" marker pierced into its middle? Does the meat have a bone? Is the decorative salad cut or are there large lettuce leaves? Is there a separate container of gravy or sauce on the plate? Such questions are endless, yet each is easily answered by thoroughly checking out the contents with your utensils and determining the characteristics of your food before you start to eat. As with most people, you will make the occasional mistake or misjudgment. Laugh it off, learn by it, and go on. If you are

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doubtful or need affirmation of your plate's content, don't be afraid to ask.

A sighted person may describe the location of the various items on the plate. To make this description, the plate may be imagined to be the face of a clock. For example, if peas are located at the top of the plate, it is said that the peas are at 12 o'clock.

You may find it helpful to turn your plate so that any foods that require cutting or special attention, such as meat or corn on the cob, are brought to the bottom of the plate (6 o'clock position). In this way they are easier to locate and deal with without reaching over other foods.

"Loose" food such as peas or corn can be difficult to pick up. Many people use a "pusher" such as a piece of bread, a roll, or a knife to help guide food onto the fork. Another idea is to gently move the "loose" food, i.e., peas, against a barrier of "solid" food, i.e., mashed potatoes. This will give you the advantage of being able to get under the "loose" food, as the barrier prevents such food from moving around the plate.

When sprinkling salt from a shaker onto food, sprinkle first into the palm of the hand to determine the amount and how fast the salt is flowing. This will prevent a fast flowing shaker from ruining your dish.

It's easier to put sticky jam, honey, etc., on your bread if you use a teaspoon to scoop it on and then use the back of the spoon or a knife to spread it.

While eating, it is wise to direct the motion of the fork or spoon toward the centre of the plate. Food on the plate should be

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pushed inward for it tends to move out to the edge of the plate in the normal course of the meal.

As you eat, be aware of the weight of the food on your fork or spoon. With practice and patience, you will soon be able to gauge whether you are lifting an appropriate amount of food.

It is fine to make special requests (i.e., to have meat cut, shellfish served out of the shell) when eating away from home.

Whether at home or eating out, don't hesitate to ask for assistance in Organization & Labeling in the Kitchen.

Extra shelving just wide enough to accommodate one row of canned, bottled, or packaged goods of various heights eliminates searching and confusion when trying to locate items in the back of deep wall cabinets. These shelves can be installed on any convenient wall in the kitchen or basement, on the back of a door, the wall of a stairway, in a closet or pantry. Sectioning off certain areas on these shelves and attaching labels to the shelf edge of these areas helps in identification of items. (Labeling the shelf edge further reduces the need for individual labeling.)

Use dividers in your cupboards and drawers. The shelves can be effectively sectioned off with a plastic straw laid horizontally and glued or taped into position. If you wish something more permanent, strips of wood or dowels can be used. Use easily recognized items such as ketchup or mayonnaise bottles as dividers, to separate for instance canned fruit and canned vegetables. Drawers can be divided into as many sections as you find necessary to keep articles in their proper place. A variety of plastic trays and adjustable drawer dividers is

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available in hardware or department stores, or can be custom made.

Canned goods, baking goods, etc., can be organized in different ways according to frequency of use, in alphabetical order, or into categories used. For example, spices may be divided into two groups those used for baking (cinnamon, nutmeg, etc.) and those used in main dishes (garlic, celery seed, etc.).

To help you find what you are looking for in your freezer try grouping foods of a similar type. Fish, vegetables, or meats may be put into larger bags which you can take out while you find the particular packet you want. If you have some color perception, differently colored labels and tags or colored bags may help.

A simple way to distinguish between a small number of identical containers such as cans, bottles, or salt and pepper shakers is to put an elastic band around one of them. Alternately, select brands so that no two items are in identical containers.

Use large print or braille to make labels for spices, etc. When a bottle is empty, you simply transfer the new item to the old bottle to avoid having to make new labels. If the name can be shortened so that the label can be put on the lid of the container, you need only interchange lids.

Use Labels, miniature plastic fruits, vegetables, nuts, meats, fish etc., attached to an elastic band or magnetic strip. 'Labels' can easily be put on canned goods, boxes, or frozen packages. The various distinctive shapes, textures, and colors enable the blind or visually impaired cook to quickly identify the food.

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'Labels' are available from CNIB or by writing directly to Gladys E. Loeb Foundation, Inc.2002 Forest Hill Drive Silver Spring, Maryland, USA 20903

Do not be obsessed with labeling! Among your food items and household supplies there are a number of items easily recognized by the touch, shake, or smell method. These need not be marked. Good organization in storing canned and packaged goods, as well as personal items, and keeping everything in its place will significantly cut down your need for labeling. Label only those things that cannot be distinguished by any other convenient means and keep any labels as short and concise as possible.

A useful labeling device is called the Penfriend which creates auditory labels that can be put on a wide variety of items. The Penfriend can be purchased at the CNIB.

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Preparing Meals

When pouring cold liquids, use your index finger to position the spout over and in contact with the edge of the glass. Slowly pour the liquid into the glass using your index finger to gauge the liquid level. Listen to the change in sound as you pour the liquid. Also, become familiar with the weight of the empty glass and notice the change as the glass is filled with liquid.

When pouring hot liquids put your finger slightly over the edge of the cup and stop pouring as soon as you feel the warmth of the liquid. Be sure your finger is placed away from the direct flow of liquid. When pouring hot liquids you may find it easier to pour over the sink or a tray. A liquid level indicator is another alternative when pouring hot liquids. It is a simple battery operated device with two prongs which hang over the edge of the cup and beeps when the liquid touches the prongs. (Liquid level indicators are available from CNIB).

Measure water before boiling. A measuring cup with a spout makes it easier to pour both hot and cold liquids into other containers. For example, fill your teapot with cold water and pour it into your kettle, so that you boil exactly the right amount.

To find the proper place to open a milk carton, locate the seam which runs along one corner edge of the carton from top to bottom. Always open the carton on the side opposite the seam.

Don't use a knife to cut plastic milk bags, bread bags, frozen vegetables, etc. It can be tricky. Use kitchen scissors or "Snip Its" which can be found in almost any department store or grocery store. "Snip Its" is a little device with a safe cutting

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edge surrounded by plastic. It has a little magnet on the back so it can always be found stuck to your refrigerator.

Always remove the eyes from potatoes with point of peeler or knife before peeling.

It is easier to determine if the peel on vegetables has all been removed when the vegetable is wet. The portion of the vegetable that has the peel remaining on it will have a rough texture, while the portion already peeled will have a smooth, moist texture.

Always keep fingers curled in and downward while chopping vegetables, etc. To gauge the thickness of a slice, put the blade of a sharp pointed knife by the forefinger of the hand that is holding the vegetable, then move knife and forefinger the required distance before cutting. Some vegetables are best cut in half first and placed flat side down on the chopping board before cutting into slices. The Magna Wonder Knife (available from CNIB) is a very popular and useful item. It has an adjustable slicing guide that makes it easy and safe to cut slices of bread, vegetables, and meat into different thicknesses.

Toss a salad by shaking in a large covered bowl or container. It gets well dressed and there is no mess!

Safety should never be overlooked, especially in the kitchen! When working around the stove, avoid wearing anything that might dangle over the burners, such as loose sleeves or ties.

Don't store flammables, especially oven mitts and dish towels, near the stove. You can buy magnetized hooks that stick to

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your fridge. It's a safe and convenient place to store these items. Or store in a drawer close to your oven.

Familiarize yourself with your stove and oven before using. Know which knobs control which burners. Explore your oven when cold to ensure you are aware of the position of the rack(s).

Always place your filled pot on the stove burner before turning the burner on. If you have to place or replace a pot on a burner that is already hot, use a long-handled wooden spoon (which doesn't conduct heat) to feel around the edge of the pot, ensuring the pot is centered on the burner.

Stove burner rings may be attached to burners to ensure a pot will not slide off the burner. (These are available from CNIB).

Make sure pot handles do not extend over the front or sides of the stove where they can be easily bumped or knocked over.

A colander, placed in a sink, provides an easy way to drain water from vegetables, pasta, etc., without trying to hold the cover on and keep the food in. Pot strainers which attach to the rim of the pot are also excellent for draining water.

When frying eggs, use an egg ring (available from CNIB) or use a tuna or salmon can cut open at both ends. Grease the ring before placing in the frying pan and drop one egg into each greased ring. A food turner may be slid under the ring to easily remove the eggs from the pan.

When frying meat which has to be turned, use a two-sided spatula (available from CNIB), which works like a pair of tongs. Some people prefer oven baking or roasting meats because they do not have to be turned over. Bacon, for example, which

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is very difficult to turn, may be cooked in your oven or microwave.

When reaching into the oven, prevent burns by wearing long oven mitts which extend to your elbow (available at CNIB).

Before removing a casserole or baking dish from your oven, make sure the oven door is completely open and the rack pulled all the way out.

A wooden spoon or wooden rack puller (which doesn't conduct heat) is helpful to locate a hot oven rack, to locate the dish on the rack, and to pull out the rack.

If you suspect a casserole or baking dish may boil over or splatter while in the oven, place a cookie sheet underneath to catch the spills. It is easier to clean than the whole oven.

Use large print or raised dot (Braille) timers as a guide to know when food is cooked. You can also judge the readiness of food by using a combination of sensory clues such as touch, smell, hearing, remaining vision and taste.

A muffin tin is great for baking potatoes, stuffed peppers, or tomatoes. It is easier to locate and remove the muffin tin than several items scattered on the oven rack.

To prepare smooth gravy, shake your mixture of water and flour in a plastic container with a wide mouth.

For even proportions of mashed potatoes and turnip, use an ice cream scoop. An ice cream scoop is also useful for making muffins, cupcakes, etc., because it allows you to get equal amounts of batter in each section and is easier than pouring

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directly from a bowl or using a spoon. Use a small ice cream scoop to make cookies.

If you are having trouble spreading peanut butter, or other hard to spread foods, use a small narrow spatula.

Use a tray or cookie sheet to organize utensils and ingredients when cooking. A tray catches any spills, making clean up easier, and ensures small items are not misplaced.

Use measuring cups in graduated sizes (available in department stores and from Tupperware), rather than a one cup measure with small dividing lines marked in print.

To measure a portion of a block of butter or shortening, use a stick or piece of plastic which has notches cut for cup, etc.

When measuring herbs and spices, sprinkle into the palm of your hand first so you are able to determine how much you are using. This will prevent accidentally adding too much to a dish.

Measuring small amounts of liquid such as 1 tsp. vanilla is difficult. For such amounts, dipping is easier than pouring into a spoon. You may find it beneficial to transfer liquids you use often into wide mouth containers for easy dipping. Large eye droppers or a small plastic syringe are also great for measuring extracts, flavourings, and colorings.

To separate egg whites from yolks use an egg separator or small funnel (both available in department stores). Or break the egg into the palm of your hand. Let the egg white run through your spread fingers. The yolk will remain in your hand.

Fill a large salt shaker full of flour for dusting baking pans, making gravies, etc. It isn't messy and saves flour.

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A canning funnel is helpful when pouring liquids into narrow mouth containers. Square topped funnels are easier to use.

Place a jar lid, pebbles, or marbles in the bottom of your double boiler or kettle. The rattling sound will signal if the water has boiled away.

Prevent ants, flour beetles, or other pests from invading your cupboards by leaving sage or bay leaves on food shelves.

Here is a website link to YouTube videos from the PBS program called "Cooking without Looking" which features guests with vision loss sharing their cooking strategies and recipes.

COOKING WITHOUT LOOKING VIDEOS

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Cleaning & Laundry

Wear an apron with large pockets when dusting or straightening. The pockets may be used to hold cleaning materials such as a dust cloth and polish, or may be used to hold small items you pick up along the way and plan to return to their original storage places. Likewise, put cleaning materials in a basket or bucket and carry it around the house with you so all materials will be handy as needed.

Avoid spot cleaning! Clean the whole surface to ensure no spots are missed. When cleaning counters, start at one end and work to the other in overlapping strips. Use your free hand, not holding the cloth, to check areas just cleaned for extra stubborn spots. Also work in overlapping strips when dusting, vacuuming, washing floors, etc. In large areas, you may find it helpful to divide the surface into sections such as halves or quarters, with overlapping boundaries. Use pieces of furniture (for example, a chair in the middle of the kitchen floor), or use permanent fixtures to mark the boundaries of each section you are cleaning.

Transfer liquid cleaners into containers with pumps for easy use. Containers can be filled with a funnel. Remember that flat sided bottles upset easily.

To fill a steam iron, use a turkey baster, a funnel, or a squirt bottle.

Safety pins or Sock Tuckers (available in department stores and from CNIB) can be used to keep socks in pairs during washing and drying. Some people find it helpful to buy socks in different colors with slightly different patterns or textures for sorting purposes.

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Wash small items in a pillow case or small mesh laundry bag to keep them from getting lost.

It is easier to measure laundry detergent by dipping into the box or container it is stored in. Avoid pouring directly from the box.

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Leisure Time

When playing board games, visually impaired people may find it helpful to use dice that will contrast with the color of the board. Black dice are easier to locate on a white board and vice versa. Also, don't be afraid to substitute larger or color contrasted objects for game pieces that are difficult to locate. For example, use a thread spool in a color that contrasts with the board for a game piece.

A variety of adapted games like Monopoly and Scrabble, playing cards, and Bingo cards are available from CNIB in both large print and Braille. CNIB also has a variety of adapted tools such as large print and raised line rulers. Call your local CNIB Technical Aids Department for more information.

Public Libraries and the CNIB Library have a wide selection of books and magazines on tape.

When hand sewing, use a small bowl to keep track of your Needle, thread, thimble, etc.

Keep a few needles threaded for quick access or use Self Threading Needles (available from CNIB and sewing shops).

You can buy a seam guide that will screw onto the flat bed of your sewing machine. It is adjustable and can provide a tactile guide with which to measure seams. Check with your sewing machine dealer. People with low vision may find it useful to place a brightly colored piece of tape on the seam guide.

Keep a magnet in your sewing basket to pick up pins and needles.

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Many people are not aware of all the recreational and leisure resources available in their own community. Contact your Recreation Department, YWCA, YMCA, Adult Education Association, Church, Women's Club, Specialty Groups, and Leagues in your area to find out about the programs and activities they offer.

With any leisure time activity, from wood working to knitting, begin with very basic techniques and continue to build on your skills. People with low vision may find it helpful to use contrasting color and/or larger materials, additional lighting and/ or magnification. Take your time and remember, a little patience goes a long way!

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Important Odds & Ends

Each household item should have a specific place and should be returned there immediately after use. Don't just drop something! When the phone rings, take it with you and put it away after the call. That way you won't have to spend a lot of time looking for it when it is next needed. Encourage other family members to return items to their proper place after using. After all, organization makes it easier for everyone to find things!

It is not necessary to rearrange furniture in a special way in your home, but some changes may be helpful. For example, potential obstacles such as a low coffee table With sharp edges may be moved out of the main circulation area. (This will prevent the BBB's ? black & blue bruises.) Also, remember to keep the room doors, closet doors, and cupboard doors all the way open or all the way shut.

Large print numbers, raised numbers, and/or Braille on Elevator panels and outside the elevator doors (marking the floor number) are helpful, especially in large buildings. If you live in an apartment complex, place an identifiable marker such as a decoration or door knocker on your apartment door. In a hotel, place an elastic band or twist tie around your door handle to ensure you are at the right room.

When you are grocery shopping with a sighted person, it's easy to maneuver through the store if you stand behind the grocery cart, holding the cart handle, and let the sighted person lead, guiding the cart from the front. If you plan to shop alone, call the grocery store in advance and request assistance. Most grocery store managers are more than willing to arrange a

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mutually convenient time for a clerk to help you find the items you require. Some individuals prefer to have a volunteer do their grocery shopping. Also many grocery stores (and drug stores) deliver for a small fee.

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Sighted Guide

Sighted guide is a way to get help from a friend or family member to get around safely in unfamiliar areas. The following directions explain the basic technique for "sighted guide" and circumstances that you may find useful.

Basic Arm Positioning:

1. **Take the guide's arm just above their elbow.**
2. **Grip your fingers inside their arm and your thumb outside.**
3. **The guide's arm is held in a relaxed position close to their body with their elbow bent.**

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***If you are shorter or taller than your guide, you may need to change your grasp to a new place on their arm. For example, you may need to grab the guide's arm closer to their wrist if you are significantly shorter. Or, you may need to move your hold towards their shoulder if you are significantly taller.**

Basic body position:

You will walk a half step behind and to the side of your guide holding their arm firmly. For example, your left foot should be in line with the guide's right foot while your guide remains in front.

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Narrow Passage:

1. **Your guide will tell you a narrow space is ahead.**
2. **Your guide will stop and move their arm towards the center of their back.**
3. **Extend your arm that is holding onto your guide.**
4. **Move directly behind your guide. (you should be one full step behind)**

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Stairs and Curbs:

1. **Your guide will tell you there will be stairs or a curb. It is best for them to give short but important information. For example, "Up 3 steps right rail." If there are a lot of steps, they can say, "down flight right railing."**

2. **Your guide always approaches the stairs or curb squarely. This is important for your guide to be consistent and always approach level changes in this way.**

3. **If railing is there but not where you can use it, change sides. Your guide will instruct you to switch sides before starting.**

4. **You want to feel the first step up or down with your toe.**

5. **Your guide will lead you up or down and tell you when you have reached the flat surface.**

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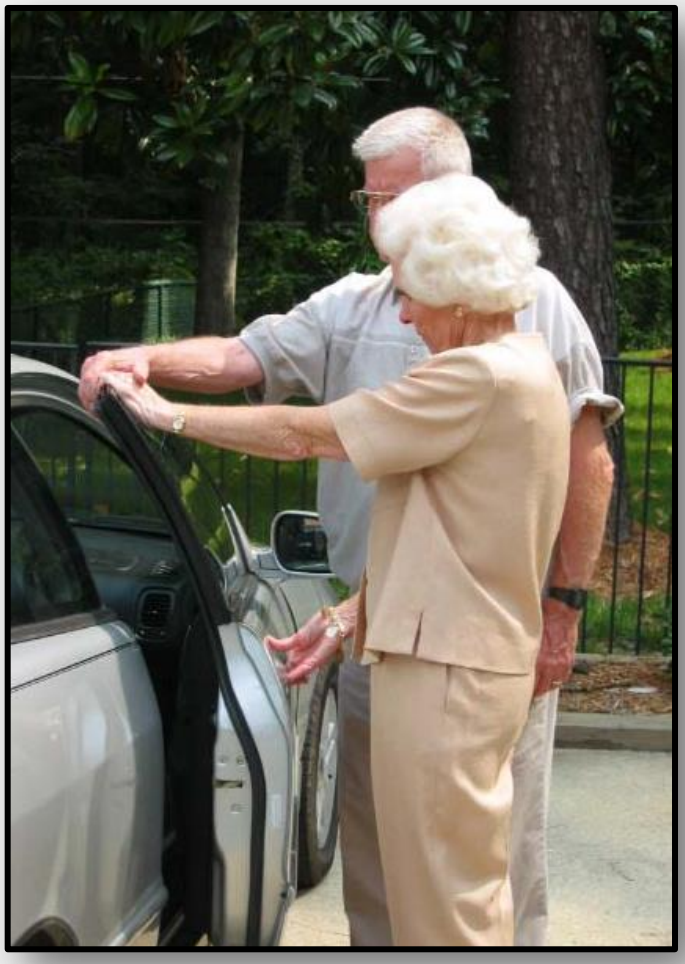
Car entry:

1. **Your guide tells you which way the car is facing.**
2. **Your guide helps you place one hand on the door handle and one on the top corner of the door.**
3. **After opening the door, you will move your hand from the top corner of the door to the roof.**
4. **Now you are ready to enter the car.**



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Sitting in a chair:

1. **Your guide will bring you to the front of the chair and place your hand on the back of the chair.**
2. **Your guide will describe the type of chair. For example, guide might say "armed rolling chair".**
3. **You will brush the seat with the back of your hand to make sure there is nothing on it.**
4. **Turn around, feel the chair on the back of your legs and sit down.**

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In all of these circumstances, it is important for you and the guide to be working as a team. It is up to you to know when you need help and how to ask for it. If you feel that you would like to become more independent and have more training, you may consider seeing an orientation and mobility specialist. A good place to start is by contacting CNIB.

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Adaptive Aids for People with Diabetes

Youville Diabetes Centre
centre de diabète Youville

33 rue Marion Street
Winnipeg, MB R2H 0S8
Tel/Tél: (204) 233-0262
Fax/Téléc: (204) 233-1520
www.youville.ca

ADAPTIVE EQUIPMENT
For Blind/Visually Impaired Individuals with Diabetes

last revision: March 2013 (created and shared by Youville)

Contact information for suppliers of equipment listed in this resource is located at the end. Mention of a product does not constitute an endorsement by the organization that developed this resource. Before committing to a purchase, individuals should ensure that:

- **Instructions come with the item**
- **They understand the warranty period and any 'no return' policy**

Ideally, a health care professional with knowledge in adaptive equipment should be present to assist the individual for first-time use.

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A. Blood Glucose Monitoring (p. 79)

B. Insulin Administration - Syringe Loading (p. 83)

C. Insulin Administration – Injection Aids (p. 87)

D. Suppliers (p. 90)

E. Desirable Features of a blood glucose meter for people with low vision (p. 94)

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A. SELF-BLOOD GLUCOSE MONITORING

1. **Accu-Chek Mobile®**
2. **Oracle Blood Glucose Monitoring System®**
3. **Prodigy Meters (Autocode and Voice)- only available in the US**

1. Accu-Chek Mobile®

The Accu-Chek Mobile® from Roche has a 50test strip cassette so the user never has to handle individual test strips. The cassette is calibrated automatically (no manual coding required) and the meter detects the expiry date of the strips. The lancing device is attached to the meter, allowing users to ready the lancet and test with one thumb movement. Results available in 5 seconds. There is no option to re-dose the strip if the blood sample is insufficient.

The Mobile® can be used by individuals with manual dexterity problems (arthritis, Parkinson's):

- **No strip handling**
- **The lancing device can remain attached to the meter, or can be detached to accommodate user preference**

In addition to a having a large display screen, the Mobile® features an acoustic mode that allows individuals with vision problems to use it. To program it to the acoustic mode, a sighted person must follow the instructions in Chapter 4 of the Accu-Check Mobile® User's Manual. The interpretation of

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glucose results must be taught by a sighted person following the information laid out in Chapter 6 of the User's Manual.

2. Oracle Talking Blood Glucose Monitor® 1-866-829-7926

- **Talking Function - either English or French**
- **No Coding**
- **Alternate Site Testing**
- **Tiny Blood Volume**
- **Simple Single Button Operation**
- **6 Second Results**
- **450 Memory events; Keeps track of date and time with 7,14, 21, 30, 60, and 90 day averaging**
- **Computer downloadable (Computer download cable is sold separately)**
- **Ketone Warning automatically comes on when your blood glucose is above 13.3 mmol/L**
- **Can be ordered at Wal-Mart, Safeway, London Drugs, PharmaPlus, PharmaSave, Rexall etc (see website for comprehensive list)**
- **Covered by DVA and NIH (Nov 2009)**
- **Strips are covered under Manitoba PharmaCare up to a max of 4,000 strips/benefit year. Approx $90.00/box of 100.**

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3a. Prodigy Autocode Meter®

These talking blood glucose meters are currently only available from the U.S. Meters and supplies can be ordered online from the company.

- **Prodigy Autocode- Meter costs approx $31.00US (strips $21/bottle 50)**
- **Capillary draw with a small sample size, 6 second test result**
- **Meters 'talk' the user through the test procedure**
- **No coding required**
- **2-AAA batteries. Results can be programmed to read out in mmol/l**
- **Standard lancing device comes with the meter**

3b. Prodigy Voice Meter® 1-800-366-5901

- **$80.00US for the meter; $21.95/bottle of 50 test strips (Shipping and handling apply)**
- **3 minutes to apply sample once test strip is inserted into the meter**
- **No coding required**
- **Can be programmed (date/time etc) without vision**
- **400+ meter memory that can be reviewed acoustically**
- **No handle strip ejection button**
- **0.6ul sample and fast readout time**
- **Buttons on meter are large with tactile icons on them**
- **Noticeable larger notched area on meter for easy detection of where strip is to be inserted**

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- **Meter will notify user if a used test strip has been inserted**
- **Standard lancing device**
- **User manual is available on CD**
- **SunLife Insurance covers this meter. For those without SunLife, MD endorsement for this meter will allow people to reclaim some of the money at Income Tax time.**

Website: http://www.prodigymeter.com/

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A. INSULIN ADMINISTRATION: Insulin Syringe Loading

1. Center-Aid®
2. Count-a-Dose®
3. Safe Shot®
4. Insul-cap®
5. B-D Magni-Guide®
6. Insul-Eze®
7. VialDock®
8. Syringe Magnifier®
9. Syringe Support®
10. Injection Safety Guard®

1. Center-Aid®

This device centres the needle in the vial top to avoid bent and blunted needles. Easy to slip on and off the vial top. Lightweight, sturdy metal is easy to keep clean. Available from LS&S and MaxiAids. Suggested retail price: (U.S.) $5.00 -$6.00.

2. Count-a-Dose®

This tool enables a blind or partially-sighted person to fill syringes and self-administer the proper insulin dose. The device makes a distinctive click that can be heard and felt with each increment of insulin. It uses the BD 50 unit (1/2 cc) syringe only and allows someone to mix two kinds of insulin (any brand). Fills in one-unit increments. Once a person knows his or her unit dose of insulin, he/she simply turns the dial, counts the clicks and self-injects the proper dose. Count-a-Dose® can be difficult to use with larger doses of insulin and

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requires good manual dexterity, manual sensation, and the ability to hear the click. Comes with instructions and audiocassette. Available from LS&S, MaxiAids and MediCool. Suggested retail price: (U.S.) $68.95.

3. Safe Shot®

This device guides the plunger of a syringe and can be preset to allow a person to draw the same insulin dose with each use. Dosage measurement will stay fixed once set. Works with all 30unit, 50unit, and 100unit syringes. Available from LS&S and MaxiAids. Suggested retail price: (U.S.) $11.95.

4. Insul-cap®

Insul-cap® makes withdrawing insulin easy, even for children and those with impaired sight and arthritic conditions. It holds the insulin bottle while the person holds the syringe. Helps stop waste by allowing more insulin to be withdrawn. Different coloured caps identify different insulin.

Easy to put in and remove. Contact AmbiMedInc for product information and potential retailers.

5. BD Magni-Guide®

This device magnifies syringe readings to 1.7times. Compatible with 30unit, 50unit and 100unit BD syringes. It clips to the syringe barrel and helps to guide syringe needle into vial. Available through MaxiAids and online diabetes supply shops. Suggested retail price: (U.S.) $7.95-$9.95.

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6. Insul-Eze®

This device fits over the barrel of a syringe, magnifying its markings by 2X. Fits over most syringes and insulin bottles. Contact AmbiMedInc for product information and potential retailers.

7. VialDock®

This device fits over the barrel of a syringe, magnifying its markings by 2X. Fits best with Eli Lilly insulin vials but may accommodate other vials as well. Available through Amazon and online diabetes supply shops. Suggested retail price: (U.S.) $8.00- $10.00.

8. Syringe Magnifier®

This device fits over the barrel of a syringe, magnifying its markings by 2X.
Available through LS&S and online diabetes supply shops. Suggested retail price: (U.S.) $5.00.

9. Syringe Support®

This device is used to draw up insulin(s) into a syringe. Available through MaxiAids. Suggested retail price: (U.S.) $32.95.

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10. Injection Safety Guard®

Similar versions of this device made both by Ezy-Dose as well as Apothecary. This attachment fits over the cap of an insulin vial, creating a barrier that protects the hand holding the vial from accidental needle sticks.

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B. INSULIN ADMINISTRATION: Injection Aids

1. Autoject 2®
2. Inject-Ease®
3. Novofine Remover®
4. Insulin pens (pre-filled disposable and reusable)

1. Autoject 2® and Autoject 2 EI®

This device automates insulin injection by delivering insulin through loaded syringe at the push of a button. Safety mechanism prevents accidental firing and has adjustable needle depth penetration. Available from MaxiAids and some online diabetes supply shops (ie. diabetic express). Suggested retail price: (U.S.) $32.99- $43.00.

2. Inject-Ease®

Inject-Ease® helps make injections easier and comfortable. It can be used with most disposable insulin syringes. A no-return policy ensures no prior exposure to blood. Available online through Diabetes Express or contact AmbiMedInc for product information and potential retailers. Suggested retail price (CAD/U.S.): $31.99- $43.00.

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3. Novofine Remover®

These devices ensure safe attachment and removal of needles from insulin pen devices. Ask your pharmacist to call the local Novo Nordisk representative or speak to your Diabetes Education Centre. Free.

4a. Pre-filled, disposable insulin pens

Most insulin pen companies make pre-filled disposable insulin pens that come at a similar cost to insulin pen-fill cartridges. Although these pens are not specifically designed for blind/visually impaired people, they can be used successfully because of the click that is audible at each position on the dial. For those with some vision, the dosage indicator window may be viewable to confirm dosage. Pre-filled insulin pens must be taught by a sighted person. The advantage of pre-filled insulin pens is that there is no need to load the pen with new insulin cartridges. The number of doses per pen must be counted out in advance so that the person knows when to begin using a new pen.

4b. Reusable insulin pens (Novolin-Pen®4, Luxura Pen, SoloStar, ClickStar)

All insulin companies make reusable insulin pens. Although these pens are not specifically designed for blind/visually impaired people, they can be used successfully because of the click that is audible at each position on the dial. For those with

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some vision, the dosage indicator window may be viewable to confirm dosage. These pens must be taught by a sighted person. The number of doses per cartridge must be counted out in advance so that the person knows when to insert a new cartridge.

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SUPPLIERS

AmbiMedInc.
908 Sir Francis Ave.
Capitola, CA 95010
1-831-475-1765
info@ambimedinc.com

AutoControl Medical
6695 Millcreek Drive, Unit 5
Mississauga. ON, L5N 4R8
(905) 814-6350
1-800-472-3576 (Maritimes and Newfoundland)
1-800-461-0991 (Ontario and Manitoba)
1-800-808-3998 (Western Canada)
http://www.autocontrol.com

BD Consumer Healthcare
2771 Bristol Circle
Oakville, ON, L6H 6R5
1-800-267-5577
www.bd.com

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Cleveland Sight Center
1909 E 101st Street
Cleveland, OH 44106
(216) 791-8118, ext 278
Eye-Dea Shop
www.clevelandsightcenter.org

LS&S
P.O. Box 673
Northbrook, IL 60065
(847) 498-9777
1-800-468-4789
TTY 1-866-317-8533
www.lssproducts.com

MaxiAids
42 Executive Blvd
Farmingdale, NY, 11735
1-800-522-6294
TTY 1-631-752-0738
For information: 1-631-752-0521
www.maxiaids.com

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MediCool Inc.
20460 Gramercy Pl
Torrance, California, 90501
(310) 782-2200 (phone)
www.medicool.com

Novo Nordisk Canada Inc.
2700 Matheson Blvd. East
3rd Floor, West Tower
Mississauga, ON, L4W 4V9
1-800-465-4334
www.novonordisk.ca

Roche Diagnostics
2455 Meadowpine Blvd
Mississauga, ON L5N 6L7
(905) 542-5555
1-800-363-7949
http://www.accu-chek.ca/

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Online Resource to check for market availability of products:
http://www.abledata.com

Other online diabetes supply shops:

- **Diabetes Express Pharmacy (Canadian):**

  http://www.diabetesexpress.ca

- **The Insulin Case Shop: http://www.insulincase.com**
- **Diabetic Express: http://www.diabeticexpress.com**

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Desirable Features of a Blood Glucose Meter for People with Diabetes who are Blind/Visually Impaired

The following list has been taken from an article entitled "Product Evaluation: Managing Diabetes with a Visual Impairment" by authors Mark Uslan, Caesar Eghtesadi, Angie Spiker, Karla Schnell, and Darren Burton. It appeared in *AccessWorld*®, Volume 3, #5, September 2002. (AccessWorld® is a publication of the American Federation for the Blind. Website: www.afb.org.) The authors evaluated several blood glucose meters that were on the market in 2002 and rated them according to features relevant to blind/visually impaired individuals. The following is a list of some of those features which this population might use as a guide when buying a meter.

a) Ability to Apply More Blood After the Test Starts

If not enough blood is applied to the test strip, some meters allow more blood to be applied after the initial application. This feature reduces the need for re-testing and avoids wastage of a strip.

b) Cleaning

Some meters require cleaning of residual blood that might be on sensitive parts of the meter. Other designs are such that these components are not exposed, eliminating the need for cleaning.

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c) Size/Portability

Most meters today are small and can be carried in a pocket or purse. However, there may be a variance in screen readability. Is there good contrast between the background and the numbers? Can the numbers be viewed in all lighting?

d) Accuracy and Consistency

This feature is critical to anyone who has diabetes. The meter should be able to give similar readings on successive tests of the same blood sample (consistency) and those readings should be similar to the readings of standard lab results (accuracy).

e) Downloading Capability

Meters have the ability to keep test results in memory. How easy is it to download the data to a computer and translate into logs or charts, which can be a tool for people with diabetes and their physicians.

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Resources

This section gives various helpful web and hardcopy resources for living with low vision.

Web Resources

Books

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Web Resources

Here are some website resources related to low vision which you may find helpful.

To change font size, hold down your control key while moving the scroll dial on the computer mouse.

The CNIB website: When low vision interferes with everyday activities, CNIB can help you adjust. They can also help you prepare for future vision loss, and may be able to help prevent future vision loss. http://www.cnib.ca

http://www.virn.ca/ This is the Visually Impaired Resource Network website. This network offers a free phone-in news line at 1-888-471-1919. They offer assistance to people for reading their mail. They offer bowling, curling and other leisure activities in Winnipeg for people with visual impairment. Technology support, education and podcasts and other services offered.

http://www.blindcanadians.ca/ The Alliance for Equality of Blind Canadians runs a number of national programs and events each year, in addition to offering online discussion tools, chapters and affiliates, and direct support to those who are blind, deaf-blind and partially sighted. There is a local Winnipeg chapter for this group.

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http://lowvision.preventblindness.org/ Living well with low vision website.

http://www.visionaware.org/ This is a self-help on-line support for those with vision loss.

http://www.lighthouse.org/ Information and courses are available from Lighthouse, which is an international organization.

http://www.visionaidcanada.com This is a website which offers various products for those with vision loss.

http://www.maxiaids.com This is another website which offers various products for those with low vision, and other limitations.

http://www.blindmicemart.com/ This online store has many products available. They also have descriptive movie downloads and podcasts of "cooking in the dark" shows.

http://www.braillebookstore.com This is another website which sells low v*ision products.*

http://www.voiceprintcanada.com/ This is the national broadcasting service for those needing audio version of the news, etc.

http://www.oracldiabetes.com This is for a talking glucometer that is available in Canada

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http://elm.lib.overdrive.com/ED97F003-A16D-46AB-9E4D-2BFCC483889B/10/406/en/Default.htm eLibraries Manitoba- This is for electronic audio books that you can download using your library card.

http://www.blindsport.mb.ca/ This is the Manitoba blind sports association website.

http://www.blindcanadians.ca/ This is the website for the Alliance for Equality of Blind Canadians.

http://www.noirmedical.com This is an American website where you can purchase filters or tinted glasses to manage glare, light.

http://www.yourtechvision.com/ Techvision is a company that strives to give people with vision loss the technology skills and knowledge be independent – there are lessons available to achieve goals such as reading with technology. You may have to copy this link to your browser to open it.

http://appadvice.com/applists/show/apps-for-the-visually-impaired Here is a list of apps for mobile devices for people with vision loss.

http://www.preventfalls.ca/ Here is a link to a falls prevention website that the Winnipeg Regional Health Authority has produced.

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Here are a few options for computer screen magnification:

http://www.aisquared.com Zoomtext which has a 60 day free trial from
http://www.magnifier.sourceforge.net/ Virtual Magnifying Glass 3.5 A free, open source, screen magnifier, for Windows, Linux, FreeBSD and Mac OS X.

Here are some links to free screen reading programs:

http://www.screenreader.net/

http://www.nvda-project.org/

http://www.satogo.com/en/ Follow the prompts to download and run the screen reader program. SATOGO requires that it not be disconnected from an Internet connection while it is operating.

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Books

Following is a list of books and resources that are available as part of the Consumer Health collection at the Sister St. Odilon Library at the Misericordia Health Center. Contact the library at (204)788-8109

***I have glaucoma" [videorecording] : an educational DVD = "Je fais du glaucome" : un DVD éducatif*, 2009, Jewish General Hospital = Hôpital général juif, Montreal.**

***All about your eyes*, 2006, Duke University Press, Durham.**

Adams, N.A. 2009, *Nutrition for the eye: the top 50 nutrients to know, from the basics to the details : the myths, the realities, & the scientific evidence*, Stanley Publishing Co., El Paso, TX.

Bergman, L., Miller, J.E., Chicago Lighthouse & American Foundation for the Blind 2012, *Out of sight, not out of mind: personal and professional perspectives on age-related macular degeneration*, AFB Press, New York.

Boyer, D.S. 2012, *Macular degeneration : a patient's guide to treatment*, Addicus Books, Omaha, NB.

Brady, F.B. 2006*, A singular view : the art of seeing with one eye*, rev. 7th U.S edn, Michael O. Hughes, Vienna, VA.

Burn, H. 2003, *The aging eye : preventing and treating eye disease : a special health report from Harvard Medical School*, Harvard Medical School, Boston, MA.

Capogna, L. 2011, *Eyefoods : a food plan for healthy eyes*, LB Media Concepts, Niagara-on-the-Lake, ON.

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Chang, D.F. 2012*, Cataracts : a patient's guide to treatment*, 2nd edn, Slack, Inc., Thorofare, NJ.

Cook, D.L. 2004, *Visual fitness : 7 minutes to better eyesight and beyond*, Berkley Books, New York.

Duffy, M.A. 2002, *Making life more livable : simple adaptations for living at home after vision loss*, Rev edn, AFB Press, New York.

Flammer, J. 2006*, Glaucoma : guide for patients, an introduction for care-providers, a quick reference*, 3rd rev edn, Hogrefe, Seattle, WA.

Gilbert, P. 2006, *Coping with macular degeneration*, Sheldon Press, London.

Hickman, L. 2010, *Eyegames : easy and fun visual exercises, an occupational therapist and optometrist offer activities to improve vision!* 3rd edn, Sensory World, Arlington, TX.

Kwitko, M.L. 1994, *Eyes*, Key Porter Books, Toronto.

Lam, A. 2013; 2013, *Saving sight: an eye surgeon's look at life behind the mask and the heroes who changed the way we see*, Fir edn,.

Langdell, C.C. 2011, *Coping with vision loss : understanding the psychological, social, and spiritual effects*, Praeger, Santa Barbara, Calif.

Ledford, J.K. 2009, *The little eye book : a pupil's guide to understanding ophthalmology,* 2nd edn, SLACK, Thorofare, NJ.

Orr, A.L. 2006, *Aging and vision loss : a handbook for families*, AFB Press, New York, NY.

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Ringgold, N.P. 2007, *Out of the corner of my eye : living with macular degeneration*, AFB Press, New York.

Roberts, D.L. 2006, *The first year : age-related macular degeneration : an essential guide for the newly diagnosed*, Marlowe & Co., New York.

Samuel, M.A. 2008*, Macular degeneration : a complete guide for patients and their families*, Basic Health, Laguna Beach, CA.

Schneider, M. 2012, *Vision for life: ten steps to natural eyesight improvement*, North Atlantic Books, Berkeley, Calif.

Trope, G.E. 2011, *Glaucoma : a patient's guide to the disease*, 4th edn, University of Toronto Press, Toronto.

Watts, M.T. 2005, *Cataract : what you need to know*, Sheldon Press, London.

(More below)

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“A Guide To Independence For The Visually Impaired and Their Families” by Vivian Younger

(This is available in talking book only - 5 cassettes)

Available at:

Amazon.ca

or

Centennial Library (Winnipeg Public Library)

251 Donald Street

Call No: (Talking book) 362.41

“Out of the Corner of My Eye” by Nicollette Pernot Riggold

(for those with Macular Degeneration)

Available at:

Amazon.ca

or

Centennial Library

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When low vision interferes with everyday activities, CNIB can help you adjust. They can help you prepare for future vision loss, and may be able to help prevent future vision loss.

- ✓ **CNIB is open to Canadians of any age.**
- ✓ **They do not require a doctor's referral for initial contact**
- ✓ **Most services are provided at no cost**

Services include:

- **Vision assessments**
- **Training in using low vision devices**
- **Low vision devices like software, sunglasses, talking watches, and magnifiers**
- **Training in how to best use your remaining vision**
- **Training in safely walking/moving in your community**
- **Computer and cell phone accessibility training**
- **Libraries of braille, printbraille, and audio material**
- **Supportive counseling**
- **Career and Employment Services**
- **Independent living services – build everyday skills and confidence**
- **Child and family services – helping children who are blind or partially sighted grow and learn to become independent**

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In addition to services, many locations have stores with helpful low vision aids.

To contact their Manitoba or Saskatchewan locations, see below.

Contact CNIB

Toll-Free: 1-800-563-2642

Website: www.cnib.ca

Email: Manitoba@cnib.ca Saskatchewan@cnib.ca

CNIB Locations:

Winnipeg, MB

Drs. Daya and Chander Gupta Centre
1080 Portage Avenue
Winnipeg, MB R3G 3M3

Phone: 204-774-5421

Fax: 204-775-5090

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Brandon, MB

Drs. Daya and Chander Gupta Centre
354 Tenth Street
Brandon, MB R7A 4G1

Phone: 204-727-0631

Fax: 204-727-1139

Regina, SK

2550 Broad Street
Regina, SK S4P 3Z4

Phone: 306-525-2571

Fax: 306-565-3300

Saskatoon, SK

1705 McKercher Drive
Saskatoon, SK S7H 5N6

Phone: 306-374-4545

Fax: 306-955-6224

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Contact Us

For more information, contact Corie Haslbeck, OT Reg. (MB).

Email: chaslbeck@misericordia.mb.ca

Phone: (204) 788-8194

Mailing Address:

Corie Haslbeck, OT Reg. (MB)
99 Cornish Ave
Winnipeg, MB
R3C 1A2
Canada

Website: www.misericordia.mb.ca

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This Low Vision Resource Packet was compiled by Corie Haslbeck, OT Reg. (MB) and Ben Badgero, Student OT (U of M). Thank you to Ben for his hard work and dedication in creating this resource during his occupational therapy student placement in May – June 2014.

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